

<b>R.C. &amp; Sons Paving Inc.</b>	)	<b>Departmental</b>
<b>Androscoggin County</b>	)	<b>Findings of Fact and Order</b>
<b>Auburn, Maine</b>	)	<b>Air Emission License</b>
<b>A-864-71-A-N</b>	)	

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

## **I. REGISTRATION**

### **A. Introduction**

R.C. & Sons Paving Inc. (R.C. & Sons), located in Auburn, Maine, has applied for an Air Emission License, permitting the operation of their new hot mix asphalt plant.

### **B. Emission Equipment**

R.C. & Sons is authorized to operate the following air emission units:

#### **Asphalt Plant:**

<u>Equipment</u>	<u>Process Rate (tons/hour)</u>	<u>Design Capacity Firing Rate</u>	<u>Control Devices</u>	<u>Stack ID</u>	<u>Date of Manufacture</u>
Rotary Kiln	120	40.0 MMBtu/hr, 285.7 gal/hr, 0.35% sulfur #2 fuel oil	Baghouse	1	2003

### **C. Application Classification**

The application for R.C. & Sons is classified as non-major based on the hot mix asphalt plant emissions. The license is for a non-major source and has been processed as such.

## **II. BEST PRACTICAL TREATMENT (BPT)**

### **A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

### **B. Asphalt Plant**

The Rotary Kiln was manufactured in 2000 and is therefore subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

Emissions from the asphalt operation and rotary kiln shall vent to a baghouse to meet the requirements of BACT. The rotary kiln fires #2 fuel oil with a sulfur content not to exceed 0.35%. Fuel use shall not exceed 80,000 gal/year total based on a 12 month rolling total. Regulated pollutants emitted from the rotary kiln are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC).

A summary of the BACT analysis for each of the pollutants is discussed below:

1. Chapter 106 regulates fuel sulfur content, however the use of 0.35% sulfur by weight fuel is more stringent and shall be used. SO<sub>2</sub> emission rates are based on all of the sulfur present in the fuel being converted to SO<sub>2</sub>.
2. PM emission limits from asphalt plants are regulated by 40 CFR Subpart I and MEDEP Chapter 105. However, 0.03 gr/dscf (3.18 lb/hr) is more stringent and shall be used.
3. NO<sub>x</sub>, CO and VOC emission limits are based upon AP-42 data dated 12/00 for hot mix asphalt plants.
4. Opacity from the asphalt plant baghouse is limited to no greater than 20% on a six (6) minute block average, except for no more than 2, six minute block averages in a 3 hour period.

The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary kiln is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, R.C. & Sons shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

Fugitive particulate emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 10% opacity on a 6 minute block average basis.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per year without prior approval from the Department. R.C. & Sons shall only process gasoline and #2 fuel oil contaminated soil material without prior approval from the Department.

**E. Stock Piles and Roadways**

BACT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity on a three (3) minute block average basis.

**F. Annual Emissions**

- 80,000 gallons per year #2 fuel oil, (0.35% sulfur by weight maximum) in the rotary kiln, based on a 12 month rolling total

**Total Annual Emissions for the Facility**  
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/yr</u>
PM	0.5
PM <sub>10</sub>	0.5
SO <sub>2</sub>	2.0
NO <sub>x</sub>	2.0
CO	6.7
VOC	0.1

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### **III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, R.C. & Sons is below the emissions level required for modeling and monitoring.

### **ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-864-71-A-N, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.

- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) **Asphalt Plant**
- a. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.
  - b. The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary dryer is operating:
    - 1. PM detector - when the detector signals excessive PM concentrations in the exhaust stream, R.C. & Sons shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.

2. Personnel with a current EPA Method 9 visible emissions certification - when the opacity exceeds 20%, the asphalt batch plant is operating with insufficient control and corrective action shall be taken immediately.
- c. To document maintenance of the baghouse, R.C. & Sons shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation.
- d. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average, except for no more than 2 six minute block averages in a 3 hour period.
- e. Fugitive PM emissions from the asphalt operation shall be controlled so as to prevent visible emissions in excess of 10% opacity on a 6 minute block average basis.
- f. Fuel use records and receipts for the asphalt rotary dryer shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil fired in the dryer.
- g. R.C. & Sons shall be limited to the use of 80,000 gal/year of #2 fuel oil (12 month rolling total), with a sulfur content not to exceed 0.35% in the rotary dryer. Compliance is based upon fuel receipts from the supplier documenting the quantity of fuel delivered as well as the percent by weight sulfur content of the fuel.
- h. Emissions from the baghouse shall not exceed the following based on a production rate of 120 tons per hour of HMA through the rotary dryer:

<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	3.18
PM <sub>10</sub>	-	3.18
SO <sub>2</sub>	-	14.10
NO <sub>x</sub>	-	14.40
CO	-	48.00
VOC	-	0.98

- i. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per year without prior approval from the Department. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
- j. Without prior approval from the Department, the licensee shall only process gasoline and #2 fuel oil contaminated soil material.
- k. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.

- l. When processing petroleum contaminated soils, the licensee shall maintain records which specify the quantity and type of contaminant in the soil, the origin of the soil and the contaminant, and the characterization of the contaminated soil. In addition, when processing contaminated soil, the licensee shall maintain records of processing temperature, asphalt feed rate, fuel use, soil moisture content, and dryer throughput, on an hourly basis.

**(17) Stockpiles and Roadways**

Potential sources of fugitive PM emissions including material stockpiles and unpaved roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity on a three (3) minute block average basis.

**(18) Equipment Relocation**

- a. R.C. & Sons shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

- (19)** R.C. & Sons shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

- (20)** The Hot Mix Asphalt Plant is subject to 40 CFR Part 60 Subparts A, and I and R.C. & Sons shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7. The performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit (reference 40 CFR Part 60.8). R.C. & Sons shall submit a test notice to the regional inspector at least 30 days prior to the performance test.



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- (21) R.C. & Sons shall pay the annual air emission license fee within 30 days of **May 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (22) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 15, 2003

Date of application acceptance: April 16, 2003

Date filed with Board of Environmental Protection: \_\_\_\_\_

This order prepared by Mark E. Roberts, Bureau of Air Quality